

REMARKS

Claims 1, 2, 4, 6-10, 13 and 15-17 are rejected; claims 5, 12 and 14 are withdrawn from consideration as being directed to a non-elected invention; and claims 1, 3, 7, 11 and 17 are objected to. Claims 3 and 11 are indicated as being allowable if rewritten in independent form.

Review and reconsideration on the merits are requested.

In reply to the objection to claims 1, 7 and 17, the phrase "to be" has been deleted as suggested by the Examiner. Furthermore, these claims have been amended to more clearly recite that the optical device is capable of being optically connected to an optical component as claimed in claims 1, 7 and 17, respectively.

The Examiner also objected to claim 1 in that the elected species, which refers to Figs. 17 and 18, does not shown an alignment hole in the waveguide, and suggested that this portion should be removed from the claim. The Examiner further considered that the same also applies to claim 7.

Applicants respectfully traverse this second objection to claims 1 and 7, and request reconsideration for the following reasons.

Claims 1 and 7 are generic, and are defined so as to include all of the species by use of an alternative expression. Because claims 1 and 7 are generic, and pursuant to MPEP §809.02(a), if the Examiner finds the elected species (i.e., alignment hole in the optical fiber) to be patentable, the embodiment where the alignment hole is in the optical waveguide should then be examined.

The Examiner has imposed an election of species requirement, and Applicants have made their election. Withdrawal of the objection is respectfully requested.

Claims 1, 2, 4, 6-10, 13 and 15-17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over US 2003/0053766 to Cheng et al.

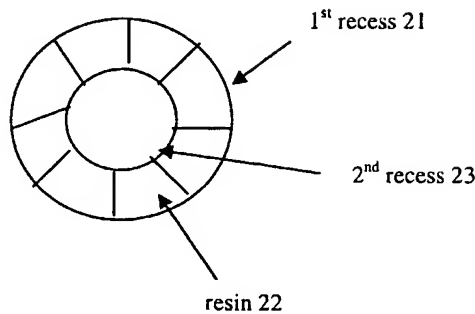
Applicants traverse, and respectfully request the Examiner to reconsider in view of the amendment to the claims and the following remarks.

Cheng et al (Fig. 9) shows alignment pins 34 extending from support passages 100 and support block 78 through alignment apertures 80 and carrier 70 into the alignment holes in the ferrule 12 (optical fiber connector). The support passages 100 are substantially larger in diameter than the alignment pins 34. The distal ends of the alignment pins 34 are cemented into place in the support passages 100 using epoxy adhesive 104. The guide pins 34 can thereby be aligned as may be required to interface with the carrier 70 and ferrule 12 and can then be rigidly supported in position (Figs. 9 and 10 and Paragraph [0033] at page 4).

Present claims 1-6, 12, 13, 16 and 17 are device claims and claims 7-1, 14 and 15 are method claims.

In the present invention, a first recess 21 is formed in an unsintered ceramic product 11 by machining such as drilling. After firing, a resin layer is formed in the first recess, and the uncured resin material preferably fills the first recess. The resin is then cured, and a second recess is machined (e.g., drilled) into the cured resin to form a second recess 23 smaller in diameter than the first recess (page 16, line 27-page 19, line 19 of the specification).

Thus, although it may be readily visualized from the cross-sections shown in Figs. 17 and 18, a top view showing the first and second recesses 21 and 23, respectively, and resin 22 is shown below.



The Examiner considered Fig. 9 of Cheng et al as showing a resin layer 104 disposed in a first recess 100 and having a second recess smaller in diameter than the first recess. However, the Examiner did not identify what he considered the "second recess" to be. Rather, in Cheng et al, alignment pin 34 is simply cemented into place with epoxy adhesive 104 in support passage 100.

Cheng et al surely does not disclose the specific method steps as claimed in claims 7 and 14 including the second perforating step of forming the second recess in the resin layer by machining after the resin layer forming step.

To clearly distinguish the method claims from Chang et al, claims 7, 14 and 15 have been amended to recite the step of curing the resin layer, which feature is neither taught nor suggested by the cited prior art. Moreover, the second perforating step is carried out after the curing step, which feature is also not taught or suggested by the cited prior art.

To clearly distinguish the device claims over the prior art, claims 1, 12 and 13 have been amended to recite that the alignment guide member is press-fitted in the second recess. Support is found, for example, at page 37, lines 28-32 of the specification. The device claims as

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 10/782,870

amended patentably distinguish over Chang et al where the alignment pin 34 is cemented in place. That is, the alignment pins 34 of Chang et al are not and cannot be "press-fitted" into a liquid epoxy adhesive, and therefore Chang et al does not meet the terms of the device claims.

Regarding claims 16 and 17, Chang et al does not teach an alignment guide member that is "fitted" or "fittingly engaged" in the alignment recess as claimed.

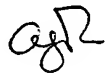
For the above reasons, it is respectfully submitted that the amended claims are patentable over Chang et al, and withdrawal of the foregoing rejection under 35 U.S.C. § 103(a) is respectfully requested.

Withdrawal of all rejections and allowance of claims 1-17 is earnestly solicited.

In the event that the Examiner believes that it may be helpful to advance prosecution of this application, the Examiner is invited to contact the undersigned at the local Washington, D.C. telephone indicated below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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23373

CUSTOMER NUMBER

Date: December 2, 2005